Attachment (2)

CATHOLIC RELIEF SERVICES

ECUADOR-PROGRAM

CHILD SURVIVAL APPLIED NUTRITION

MID-TERM EVALUATION

1993

USAID Child Survival Grant No. AID/PDC-0515-A 00-5075-00
CRS Project 73085002

INDEX

DIOCESE STAFF

CUENCA	
Monseigneur Alberto Luna Tobar	Bishop of the Archdiocese General Vicar
LATACUNGA	
Monseigneur Radl López Mayorga	Bishop of the Diocese
Parish Edmundo Viteri	Vicar of the Social Pastoral
PORTOVIEJO	
Monseigneur Mario Ruiz Navas	Bishop of the Diocese
Monseigneur Francisco Vera	Vicar of the Social Pastoral

TECHNICAL TEAM

CUENCA	
Marcela Barrezueta	Coordinator of the Project
Maria Avilés	Accountant
LATACUNGA	
Ana Córdova	Coordinator of the Project
Jaime Segovia	Member of the Technical Team
Fernando Guam&n	Member of the Technical Team
Lorena Rosero	Accountant
PORTOVIEJO	
Sor María Teresa Berrnudez	Coordinator of the Project
Jimmy Cedeño	Member of the Technical Team
Antonio Molina	Member of the Technical Team
Amanda Mejfa	Accountant

EXECUTIVE SUMMARY

In October 1991, CRS-ECUADOR initiated the third phase of the Child Survival Project in the Archdiocese of Cuenca, the Diocese of Latacunga and the Dioceses of Portoviejo. This phase includes 59 communities in the Ecuadorian highlands and coast. These communities include 3187 families, of which 1647 are beneficiaries of the project (52%).

The study was carried out in 22 days, and included a sample of 29 communities with 268 mothers with children under 2 years of age. 59 promoters and 12 community leaders were surveyed, and technical and administrative personnel of the dioceses were interviewed. After that, data was gathered on project management and operations.

This study was directed by an external evaluator and coordinated by CRS-Quito. The technical teams of the dioceses and the surveyor team were trained prior to field work, using a technique of interview and direct observation.

Most significant project achievements are growth monitoring (in 82% of children) and credit-production activities.

71% of children have achieved a normal growth (88% of the planned goal).

Diarrhea1 diseases have decreased by 7% (in relation to baseline study), and correspond to 70% of the planned goal.

66% of mothers recognize at least one of the three most severe symptoms of diarrhea; 45% of mothers know they must immediately give their children liquids; and 41% know they must prepare and provide oral rehydration salts.

Nutrition education has had good results, especially in the introduction of weaning foods, and 93% of mothers know which food they must eat during pregnancy and breast-feeding to prevent anemia.

As a result of the credit-production activity there is good community participation. Credit committees are being implemented in 85% of the communities, covering 65% of beneficiary families.

The project is being carried out according to the implementation plan. There is a good communication between dioceses, communities and CRS.

The Information System should be reviewed and a Supervision System should be implemented.

Options for project continuity and sustainability are currently limited, Other funding sources should be located in order to assure the project sustainability, since communities

do not show rapid development and require organizational strengthening.

It is suggested that promotion of other crops and small animals be initiated in the community to increase food availability and income generation and that a joint work plan and agreement be developed with the Ministry of Health to coordinate strategies.

I. INTRODUCTION

Since 1986, CATHOLIC RELIEF SERVICES-ECUADOR, in coordination with the Archdiocese of Cuenca, and the Dioceses of Latacunga and Portoviejo has been carrying out the Child Survival Project, funded by AID-Washington (Child Survival Grant No. AID/PDC-0515-A 00-5075-00) and CRS (Project No. 730-85-002).

In October 1991, the project included 59 new communities funded with USAID funds which were debt swapped to continue the original project. Of these communities, 16 belong to the Archdiocese of Cuenca, 21 to the Diocese of Latacunga and 22 to the Diocese of Portoviejo.

These communities have 3167 families, of which 52% are beneficiaries of the project (1647 families) and have been sampled for this evaluation. (Annex 1)

The project's main objective has been to improve the health and nutritional status of children under 5 years of age in 59 marginal communities.

To achieve this objective the project has been carrying out different activities such as: Growth Monitoring, Nutritional Education, Diarrhea1 Diseases Control and Credit-production.

The evaluation was carried out 18 months after the project began in the Archdiocese of Cuenca and Dioceses of Latacunga and Portoviejo. The first two dioceses are located in the highlands and the third in the coastal region.

II. EVALUATION OB JECTIVES

1. To report on the progress of different project components.

2. To propose alternatives which will improve progress on project goals and objectives, and assure project sustainability.

III. METHODOLOGY

The evaluation includes the following phases:

1. Preparation: selection of universe, samples; and development of survey instrument.

   The universe includes all the families of the 59 communities where the project is being implemented.

The methodology used to select the sample is the same as used in the Baseline study: "Conglomerate of 30", designed by Johns Hopkins University.

According to this methodology, it is obtained an interval corresponding to 556, and 29 communities are targeted.

By using random sampling, 10 mothers with children under 2 years of age from each community were selected, for a total of 290 interviews.

268 mothers were interviewed (92.4% of the sample).

The forms used in this process were:

- A standardized survey of mother's knowledge and practices was used to interview mothers.

  To interview leaders, community volunteers, project coordinators, dioceses Vicars, and coordinators of Health Provincial Offices, a survey covering aspects of technical, administrative, finances, project coordination and sustainability was used.

2. Execution: Field work gathering data was carried out. To perform this phase, the project coordinator was responsible for the diocese of Latacunga study, and project evaluators were responsible for the dioceses of Cuenca and Portoviejo study.

   Personnel selected by the dioceses formed 15 field work teams, with 2 surveyors and 1 supervisor. These people received two days of training on the survey forms with the technical teams of the dioceses.

   The schedule of visits to communities was elaborated by the technical team, and data collection required 4 days,

3. Processing and Analysis of Data.

   Data coding, quality control and tabulation was performed manually and electronically. Data processing utilized the EPI/INFO 5 system.

Iv. RESULTS

This study includes qualitative and quantitative information. The goals proposed for phase III of the project, and some of the indicators included in the Baseline study, were used as comparison parameters in the quantitative analysis to measure project progress.

1. ACHIEVEMENTS

The most significant achievements are:

- Growth monitoring
- Control of acute diarrhea1 disease
- Credit-production activity

57 training events based on leadership and formation of organizations, growth monitoring, nutrition education, diarrheal disease control, agricultural activities, animal health and credit-production were carried out to train 150 community promoters, who, in turn, trained 8-10 mothers in each community.

-Acute diarrhea1 disease

The evaluation showed improvement of child diarrhea control. The 22.5% of mothers that suspended breast-feeding during diarrhea1 episodes during baseline study, decreased to 5.2%; 31.1% of mothers that suspended food to children with diarrhea was decreased to 12.4%.

66% of mothers recognize at least one of the three most severe diarrhea symptoms, 45% of mothers know that they must give the children liquids immediately; and 41% of them know that they must prepare and provide oral rehydration salts.

-Immunizations

The 45% of children that completed the vaccination schedule (DPT and antipoliomyelitis) during the Baseline study, has decreased to 36%; and the 49% of the children that had completed the vaccination schedule to prevent measles had decreased to 37%. This may be because the mothers did not have vaccination cards when interviewed. Immunizations are not a component of the project.

-Population Coverage

In 59 communities where the project is being implemented there is a universe of 479 nursing mothers, 2,231 children from l-5 years of age and 3,506 childbearing women. Of this total, project beneficiaries included 296 nursing mothers (62%), 1,383 children from l-5 years of age (62%) and 2,174 childbearing women (40%). The project covers 62% of nursing mothers and children from l-5 years of age; and 40% of childbearing mothers (52% of families).

Project communities have low incomes and do not have basic services nor transportation.

All the communities benefitted by the project present marginality characteristics. They

are located in areas with limited access, lack public services, and have incomes scarcely meeting basic needs.

The project objective totals 2,000 new beneficiary families; current total is 1,647 (82.3% of the goal). It is expected to achieve the planned goal by the next period.

2. PROBLEMS

- 46.3% of the child mortality in marginal and rural communities where the project is being implemented are related to digestive disorders, respiratory diseases and malnutrition.

Health Promotion

Child Survival promotion activities carried out by technical-administrative personnel of the dioceses and community volunteers include:

Nutrition and alimentary education
- Growth monitoring
- Mortality prevention for acute diarrheal diseases; and
Credit-production to improve food availability at family level.

These activities contribute to improving the health and reducing incidence of illness of children. However, they should be complemented with immunization activities, and basic services (the availability of drinking water and latrines).

3. EFFECTIVENESS

Project activities benefit people in poverty conditions. Results obtained are:

a. Improved food quality during weaning
b. Growth monitoring
c. Increased breast-feeding
d. Reduced percentage of children with diarrhea
e. Feeding during diarrhea

a. Food quality during weaning

Nutritional education focused on weaning practices has significantly improved practices. The 57% of children from 6-11 months of age, who received solid or semi-solid food (Baseline study) has increased to 85% (project evaluation).

b. Growth monitoring

The objective was for 80% of children under 2 years of age to achieve a growth average over percentile 3. In this evaluation, 71% of children show an optimum growth average "over percentile 3"; therefore, 89% of the planned goal has been accomplished. Mothers have increased interest in their children's weight and have learned how to weigh and register data. Education activities reinforced by systematic practices have resulted in good habits.

c. Breast-feeding

The 76.2% of surveyed mothers who breastfed children under 23 months of age during the baseline study has decreased to 64.1%. Therefore education on breastfeeding practices should receive increased focus in order to improve children's health status.

d. Incidence of acute diarrhea1 disease

The 49.7% of children with diarrhea during the baseline study has decreased to 36.2%. It means diarrhea education has improved the care of children and hygiene practices. Credit-production activities have had influence on the educational component through changing alimentary and hygienic habits.

e. Feeding during diarrhea

In cases of diarrhea, the baseline study indicated that 22.5% of mothers suspended breast milk. This had decreased to 5.2% during this evaluation., with the 31.1% of mothers that suspended feeding decreasing to 12.4%. These percentages have been achieved through educational activities to prevent diarrheal disease.

4. IMPORTANCE OF DEVELOPMENT

These communities have limited opportunities for employment and low incomes, leaving them in conditions of extreme poverty. Due to the low educational levels, lack of basic health services and knowledge of hygiene and correct feeding habits, families are not able to attend to their children's basic necessities.

Fortnightly and monthly meetings with community mothers are carried out by promoters for mothers and fathers participating in project activities.

Credit-production activities help increase family income and assure food availability.

5. ABILITY TO CARRY OUT THE PROJECT

The project is being carried out according to the implementation plan.

1. Design

The project is being implemented in 59 communities. Nutritional education, growth monitoring, diarrhea1 diseases control and credit-production activities initiated at the beginning of the project continue to be developed. However, credit-production activities need to be reinforced because of the greater demand for credit.

According to communities and dioceses proposals, 1986 project modifications have been established as follows:

- New and innovative interpersonal activities for nutrition education.
- Strengthened community organization.
- Changes in technical teams' work modes in each diocese.

The most significant changes are:

a. Work schedule: Of the 22 workable days, 5 are used for monthly progress analysis, program and administrative adjustments, and the remaining 17 days for field work.

b. Supervision modes:

- One coordinator, and 5 promoters working with 16 communities (first diocese).
- One coordinator and 2 technical managers working with 21 communities (second).
- One coordinator, working with 8 communities and 2 technicians working with 8 communities (third).

2. Manaeement and Information

The project has an information system established in the dioceses. Quantitative and qualitative data are gathered regarding:

> Beneficiary families, high risk groups, growth monitoring, incidence of diarrhea, and educational activities. This information is transmitted for decision making.

Although the information system is functioning normally, it still requires refinement to focus on relevant impact indicators. Information gathering shows a predominance of qualitative data.

Management activities at all levels are supported with the monthly supervision activities between project managers and dioceses, and between dioceses and communities. Evaluation surveys have not been carried out.

The basic information gathered permits continued strengthening of growth monitoring and educational activities at community level. Project personnel are trained to keep the current information system.

The CRS office provides technical and financial assistance, as well as educational material.

3. Education and social promotion

Promotor activities have encouraged mothers to give children proper care. Families can obtain credit, and communities have achieved good organization. It reveals that an appropriate balance has been reached between education and social work.

All communities have centers to carry out seminars, meetings and events. Most of them have educational materials regarding project components, and 66% of them exhibit the materials in the centers.

There is not activity diffusion using mass media communications.

Although educational messages were established after obtaining focal group information, according to promoters and coordinators criteria, it should be further researched to increase acceptability.

Interviewed mothers reveal that the most effective message is growth monitoring, because mothers develop both the knowledge and practice of checking children's weight.

Messages regarding weaning practices and diarrhea control have been less effective.

Almost all messages can be understood by communities. Traditional education activities have been carried out.

4. Human Resource8

There are 12 technical managers as salaried staff. A Director of Health (physician), and a project coordinator (nutritionist) work in the central level.

Technical, financial and administrative personnel work at the diocesan level, usually a coordinator and an accountant.

In addition, the dioceses of Latacunga and Portoviejo have two technicians and a coordinator forming the technical teams.

To satisfy the project's technical and administrative necessities, a technical team is formed by nutritionists, social workers, agronomists, and a technician in animal care.

The coordinator of the technical team in each diocese carries out planning, training, supervision and evaluation activities. In the diocese of Cuenca, the coordinator carries out technical-administrative activities and community management. Five promoters support the coordinator's field work. Each works with three communities and earns $ 30 per month.

In the diocese of Latacunga, the technical team is formed by a coordinator (nutritionist), an agronomist and a technician in animal care, who perform technical and administrative activities and field work supervision in 21 targeted communities.

In the diocese of Portoviejo, the technical team (coordinator, nutritionist, and agronomist) develop technical-administrative activities, and field work is carried out in 21 communities.

Because of new procedures implemented in Cuenca and Portoviejo recently, (is it) not possible to evaluate the effectiveness of them.

Training for coordinators and the technical team regarding components and strategies of the project development was provided in two three-day workshops carried out in 1991 and two workshops (3 days) in 1992. The training period has been sufficient.

Personnel were not evaluated before training. They have been evaluated occasionally during supervision visits.

At the community level, there are 140 volunteers (promoters), who do not receive remuneration, but money for transportation, mobilization and observation visits. In addition, a volunteer works with a volunteer promoter as the credit committee treasurer of the communities.

5. Materials Supply

The CRS-Quito office has provided three computers for the dioceses and scales for communities. The Ministry of Public Health, per an agreement, provides educational material and oral rehydration salts.

All material is appropriate to project activities being developed, and it is used by the technical team, promoter, and communities.

6. Quality Evaluation

The technical team has received sufficient training to assist promoters and communities through interpersonal relationship, groups meetings, and joint work, to assure effectiveness in administration, agriculture, and home hygiene activities.

Although the promoter's activities to assist mothers and communities are effective, they require more training on community organization, group management, and food preparation.

7. Control and supervision

The main strategy in follow-up of the project activities is supervision. This activity is carried out by the Director of the Health (bimonthly), and by the CRS project coordinator (monthly), and focuses on project progress and provision of technical-administrative and financial assistance. Occasionally, the CRS-Quito accountant visits the dioceses.

At the diocesan and community level, the technical team carries out supervision of promoter activities focusing on strengthening knowledge, skills and information collection. Communities in Cuenca, Latacunga and Portoviejo are visited approximately 8, 7, and 10 times a year respectively.

The diocesan accountants supervise and follow-up credit committees funds each month, and provide training to the treasurer on accounting controls.

According to a diocesan criteria, visit times are short. Supervision should continue being both assistance and working together.

8. Use of central funds

Because of the limited budget, diocesan supervision by the Director of Health is not being continued monthly, but bimonthly.

AID funds are being used as originally intended.

9. Technical support

The project did not plan external technical assistance. Training on computers has been provided.

Due to the time limitation, project health staff has not participated in training workshops organized by CRS.

10. Relationshim with Counteqarts

Project counterparts are dioceses, who receive technical assistance, materials, and financial resources.

Personnel rotation has not occurred. Funds and inputs are being handled independently between the central office and dioceses.

The decentralization process has been consolidated in the administrative and operative programming areas.

There is good coordination and communication between the central level and dioceses.

11. Relationshir, with institutions

The agreement signed between the project and Ministry of Public Health states health services will be provided through hospitals, and health centers (in urban areas), and small health centers and posts (in rural areas).

- Communities where the project is being implemented have geographic and economic access to small health centers and posts where basic attention is given. Hospitals can give basic and complementary attention. Because of lack of budget and administrative deficiency, health services are not efficient.

Because of lack of sustained and systematic coordination with the Ministry of Public Health (MPH), dioceses do not always use health services. Although health services have not been strengthened, they provide educational materials, oral rehydration salts, and child and maternal health cards.

12. **Relationships** with **NGOs**

Although the project is not in continuous communication with **NGOs** working in the same area, coordination with CARE garden family crops program, Health Activities of HOPE, and Plan International has been established.

The coordination with the Social Pastoral office is stronger and serves to reinforce project activities.

13. **Budget** administration

Budget and cash expenditure control is handled according to AID and CRS norms. Budget modifications have not occurred.

Remaining funds will not be enough to cover activities originally planned for 11 months, but only for 10 months.

6. CONTINUATION

Both the dioceses and communities recognize the project's social character and value. However, they currently do not feel they have enough financial resources and experience to assure project sustainability.

Promoters or volunteers working in the community do not earn a salary. They are the majority of the community personnel (2.5 per community). This shows the promoters' and volunteers' interest in the project's educational component.

Diocesan technical teams earn a salary meeting local labor laws. However, without AID financing these people would not receive remuneration.

CRS-Quito Directors are looking for internal and external funding to assure the project sustainability when the AID financial support finishes.

Community criteria were considered to plan the project's third phase. There is extensive community participation in developing project activities.

According to the community criteria, the most important project activities which benefit participant families are credit-production and growth monitoring.

Information provided by the promoters, and obtained during meetings with communities, reveals interest to continue the project activities.

Although the MPH-CRS agreement states MPH participation to develop the project activities, it has not been accomplished. No plan to continue the project has been established.

Although coordination with NGOs developing project related activities has been established, there is not a concrete plan to institutionalize it.

7. RECURRENT AND RECOVERY EXPENDITURES

The diocese Vicars, CRS-Quito personnel and project administrators know exactly the budget required to develop the project, according to annual and quarterly planning.

Operating expenditures (remunerations, supplies, supervision), and credit-production activities expenditures have less possibility of being continued.

Because the project did not include cost recovery, amounts required for recurrent expenditures have not been estimated. Cost/benefit data are not available.

Due to low incomes in the communities, they are not able to finance expenditures required by health promotion activities. These activities have been financed by the Ecuadorian government, through the MPH.

At present, CRS has not designed any strategy to decrease expenditures.

V. RESULTS

Mothers' general data

The average mother's age is 29.6 years. The range is 16-49 years.

CHART1

MOTHERS' AGE PER GROUP

AGE	No.	%
15 - 19	28	10.4
20 - 24	54	20.2
25 - 29	65	24.2
30 - 34	48	17.9
35 - 39	42	15.6
40 - 44	26	9.8
45y +	5	1.9
TOTAL	268	100

Chart 1 shows that there were no mothers under 15 years of age, and 273% of the sample correspond to mothers over 35 years of age. It reveals that the majority sampled were middle-aged or high risk childbearing mothers.

CHART2

EDUCATIONBYSTUDYLEVEL

EDUCATION LEVEL	No.	%
None	60	22.4
Primary (does not read)	36	13.4
Primary (does read)	134	50.0
High school or more	38	14.2
TOTAL	268	100.0

Chart 2 shows 35.8% of mothers are illiterate; 50% have a low educational level (they only can read); and 14% have attended the high school. It demonstrates that low educational level should be considered in development of the educational component.

This situation is more severe in Latacunga, where illiterate mothers totaled 43.8% of the sample, with only 6.8% of the mothers having any educational instruction.

The majority of mothers stay at home, with only 13.4% working outside of the home. It assures the best child care.

53% of mothers are involved in economic activities for income generation. 19% of them carry out agricultural activities; 9.7% handcrafts; 8.2% sell agricultural products; and 5.2% work earning a salary.

CHART 3

MOTHERS' ACTIVITIES TO CONTRIBUTE TO HOME ECONOMY

ACTIVITY	No.	%
None	126	47.0
Handicrafts, weave	26	9.7
Crops	51	19.0
Product sale	22	8.2
Food sale	3	1.1
Market	7	2.6
Household servant	9	3.4
Remunerated work	14	5.2
Other	10	3.8
TOTAL	268	100.0

56.7% of mothers bring their children to the workplace, especially in Latacunga. Although this is an advantage for children, there is no information about children's care while mothers work.

This is an advantage for children, there is no information about children's care while mothers work.

Child Health

59.3% of children under study are 12-W months of age, and 40.7% correspond to children under 1 year of age. The average age is 12.2 months (chart 4).

CHART No. 4

CHILDREN'S AGE PER GROUPS

AGE	No.	%
0 - 5 months	42	15.7
6 - 11 months	67	25.0
12 - 23 months	159	59.3
TOTAL	268	100.0

Breastfeeding and Child feeding

64.1% of mothers were breastfeeding their children while the interview was carried out, and 89% of these correspond to children under 11 months of age and 11% to children 11-23 months of age. The average age of children being breastfed is 7.4 months of age.

38% of the mothers initiate the breastfeeding one hour after childbirth, 31% after the first hour and before 8 hours, and 27% after 8 hours. (graph 1).

Interviews to mothers regarding complementary food reveals 59.7% of mothers answered that it should initiate when children are 4-6 months of age, 28% answered when children are older than 6 months of age, and 7.8% answered when children are under 4 months of age (graph 2).

CHART 5

FOOD THAT MOTHERS GIVE THEIR CHILDREN UNDER ONE YEAR OF AGE PER AGE GROUPS

FOOD	< 5 MONTHS		6 - 11 MONTHS	
	YES	NO%	YES%	NO%
a. Water	57.1	42.9	5 .2	41.8
b. Cow milk	21.4	78 . 6	43.3	56.7
c. Mixed food	26.2	73.8	85.1	14.9
d. Fruits	9.5	90.5	65.7	34.3
e. Carrots, pumpkin, mangos or papayas	7.1	92.9	70.1	29.9
f. Vegetables: spinach, turnip, chard	14.3	85.7	53.7	46.3
g. Meat: chicken, fish	4.8	95.2	61.2	38.8
h. Bean, peanut, lentil	11.9	88.1	62.7	37.3
i. Eggs or cheese	4.8	95.2	70.1	29.9
k. Sugar, brown sugar loaf or honey	19.0	81.0	71.6	28.4
1. Oil or lard	19.0	81.0	74.6	25.4
m. Iodized salt	45.2	54.8	86.6	13.4

Food that mothers give to children O-5 months of age are: water (57%), mixed food (26%), cow milk (21.4%), and sugar (19%). The majority of mothers with children under 5 months of age breastfeed them. 85.1% of mothers give 6-11 month children them mixed food, carrots, pumpkin, eggs or cheese, and sugar or honey.

Growth Monitoring

Growth monitoring was based on revision of the child health card. It shows 82% of mothers are monitoring their children's growth.

67.2% of children having a health card were weighed during the last four months. 48.2% of health cards (in Latacunga) have not registered weight control.

Growth curves show 71% of children are growing appropriately (over percentile 3). 81% of the children in Latacunga, and 84% of Cuenca, have achieved an appropriate growth. Portoviejo shows only 47% over percentile 3.

Immunizations

Investigating mothers' knowledge about vaccination schedule (measles), 38.4% of them answered that children should be vaccinated when they are 9 months. This

percentage is low in Latacunga (26.3%).

According to the children's health cards, 56% of children under 23 months of age received BCG vaccinations, 36% received 3 doses of DFT, and 37% received the measles vaccine.

Investigating the importance of vaccinations to avoid tetanus in pregnant women, only 27.2% of the mothers answered correctly, and in Latacunga this percentage is even lower (18.4%).

Only 28% of mothers know the number of Toxoid Tetanus (TT) doses they should receive, and 34.7% do not.

Child Morbidity

An investigation regarding diarrhea1 and respiratory diseases was carried out two weeks before the survey performance.

Acute Diarrhea1 Diseases

36.2% of mothers interviewed answered that their children had shown an average of 1.6 diarrhea episodes. The higher percentage was detected in Latacunga (41%).

10.3% of mothers answered that during the diarrhea episode, they breastfed their children more than usual; 48.5% the same as usual, 9.3% less than usual, 5.2% suspended breastfeeding, and 27% had suspended breastfeeding before diarrhea episode.

33% of mothers said that during diarrhea episodes, they give their children more liquids than usual, 28.9% the same as usual, and 4.1% only breastfed children.

During diarrhea episodes, 30% of mothers decreased the food quantity, 12.4% suspended food, and 19% only breastfed children. Decreasing liquids and food will result in delay of the recovery.

To treat diarrhea episode, 32% of mothers use liquids and medical-water, 30% use salts prepared in the home, and 19.6% oral rehydration salts. However, 26.4% use anti-diarrhea1 or medicines (antibiotics).

Of the 97% mothers having children with diarrhea, 45.3% indicated that they requested advice; 32% ask relatives, 30% ask the Health Center, 23% ask physicians, and 9% ask volunteer workers.

31% of mothers answered that the most severe diarrhea symptom is dehydration

(sunken eyes, very thirsty, little urine), 23% said fever, and 12% said vomiting. These percentages reveal that 66% of mothers recognize at least one of the three most severe symptoms.

45% of mothers interviewed recognize that the most important thing is to immediately give the child liquids, 41% answered they should prepare oral rehydration salts, and 22% said that they should give the children more liquids than usual.

Acute Respiratory Infections

44.4% of mothers interviewed said that their children had had a cough and respiratory problems during the two weeks before the interview was carried out.

43% of mothers with children having respiratory infections sought help. 25% carried their children to the Health Center, 15% received help from a volunteer worker or village healer, and 8.4% carried their children to a physician.

35.1% of mothers interviewed quickly recognized severe symptoms of respiratory illnesses, 25.4% recognized fever, and 19.5% coughs. Adding these percentages, 80% of mothers recognize at least one severe symptom of acute respiratory diseases.

Medical control of acute respiratory diseases is not included in the project activities.

67.2% of mothers interviewed indicated that respiratory diseases were those that most frequently affect the family. Another 14.6% said digestive diseases. This means respiratory and diarrheal diseases are most prevalent, especially in children.

An average of S/30,000 with a 5,000-330,000 range was expended to cover treatment cost.

Maternal Health

Only 23 mothers (8.6%) have a maternal health card, with only 5.6% with registered vaccination of Tetanic Toxoid.

93% of the mothers interviewed answered they should eat vegetables with high rates of iron, and 6% said they should eat proteins with high rates of iron (chart 3) to avoid anemia during pregnancy.

Only 9.6% of mothers were aware that they should increase their weight during pregnancy (lo-12 kilos), 71.6% did not know, and 18% answered incorrectly.

Interview with Promoters

59 promoters belonging to the dioceses of Cuenca, Latacunga and Portoviejo were interviewed. General data and information on the universe, community organization and participation, credit-production, and knowledge about health and nutrition were gathered.

Cuenca: 11 promoters with an average age of 33 years and a range of 25-45 years were interviewed. 63.6% of them have completed primary studies.

The average length of employment was 1.3 months. Each promoter manages 14 families approximately.

Latacunga: 20 promoters with a mean age of 32.6 years from a range of 18-48 years were interviewed. 45% of them had completed primary studies, 30% did not complete, 20% have completed high school studies, and 5% have not finished high school.

The average length of employment is 8 months. Each promoter manages 14 families.

Portoviejo: 19 promoters with a mean age of 34.2 years from a range of 22-48 years were interviewed. 74% of them have completed primary studies, 10.5% did not complete, 5% have completed high school studies, and 10.5% have completed superior studies.

The average length of employment is 1.4 months. Each promoter manages 13 families.

Since implementation of the project, around 150 volunteers (promoters) were trained, with 57 events held including themes such as leadership training, growth monitoring, nutritional education, prevention of diseases (cholera), immunizations, diarrheal diseases control, primary agricultural activities, care of animals, and credit-production were carried out.

Activities

60% of promoters activities are related to nutritional and alimentary education for mothers, and children's growth monitoring; In addition, there were activities in improving community organization, coordination with other institutions, and catechism activities.

In Portoviejo social activities for community fund-raising were underway. 85% of promoters consider the project beneficial to mothers and children.

According to 33% of the promoters, most educational and credit-production activities may be continued if community funds were available.

Credit committees are functioning in 85% of communities, In the other communities there are only committees which coordinate with the dioceses to develop specific activities.

65% of beneficiary families (1,647) have received credit. According to the promoter criteria 40% of families have improved mother and child nutrition.

Promoters have been trained on educational feeding, growth monitoring, breastfeeding, and diarrheal disease control. However, they do not have good knowledge about the vaccination schedule of children and mothers.

As a result of credit and educational activities, families have developed alimentary habits, children's care and household hygiene.

Technical supervision to communities has been carried out in the dioceses of Cuenca (8.3 average annual visits), Latacunga (7 average annual visits), and Portoviejo (10 average).

70% of promoters are enjoying their activities as a support to the communities and a learning opportunity.

The most difficult activities for promoters are group management, food preparation and visits to families.

According to the promoters opinion, strong institutional support is essential to improving their work in the communities. In particular support was required in the meetings with communities, training regarding project components, organization of immunizations, and development of attractive educational materials. Only in some cases an increase in the credit fund was requested.

Community Participation

Direct observation was carried out in 29 communities. This observation focused on the meeting room, availability of educational material, community participation and children.

All meetings rooms, except 2, are appropriate. 19 of the centers visited had educational material, 10 of them did not.

42% of community attended the 29 meetings (21 individuals by each meeting, approximately). There was good community participation. Mothers and fathers were

expressive and knew about the 3 project components and their benefits. The majority of children were happy and clean.

Interviews with Leaders

Interviews with 12 community leaders reveal growth control and credit-production activities were the most important in the communities.

According to most community and leader's opinions, project sustainability (growth monitoring and credit production activities) may continue, through credit-production incomes, establishing fees, and looking for financing on the part of the diocese.

Interviews to Vicars

Vicars and diocesan technical personnel recognized the social character of the project benefiting communities and contributing to stronger community organizations. One of the Vicars interviewed felt that the community should be educated more in the aspect of the importance of child health since he felt that participation in the project was only due to material gain.

They considered the most important project activities were growth monitoring and credit-production activities which should be continued after the project ends. However, community capacity to get financing, and handle the follow-up to credit activities should be analyzed.

The concept of teamwork is considered to be a valued support, however, it would be more effective if group integration and consolidation are encouraged.

Technical personnel work structure varies from one diocese to another. In Cuenca there is a single person responsible for carrying out technical and administrative project activities, and 5 promoters are responsible for management of 3 communities each.

In Latacunga, the technical team is formed by a nutritionist, an agronomist, and a technician in animal care. They are responsible for carrying out field activities and meeting with all project communities.

In Portoviejo, the nutritionist and the agronomist manage 7 communities each, and the coordinator (social worker) manages 8 communities.

Regarding structure, in Portoviejo, the Vicar considers visits to communities should be short, and that personnel should rotate their visits with other project activities. The coordinator considers that more communities could be visited at a lower cost, although effectiveness of the assistance would decrease. All Vicars periodically

obtain information about the project activities.

In Latacunga, there is poor communication between the technical team members.

There is good coordination between Vicars and CRS-Quito. All their financial and material requirements are satisfied by CRS-Quito.

The project is not yet fully integrated into the dioceses as part of their programs.

Coordination with PROMUSTA and the Ministry of Agriculture has been established.

There is not significant coordination with the provincial offices of the MPH. Project coordinators say that it exists only for training events, health cards and educational material.

Directors of the Provincial Health Sectors are interested in developing health activities, especially Promotion and Protection. Latacunga suggests that the Provincial Director be provided a copy of the project in order to solicit his support.

Although development of the project activities has improved, additional support for next two or three years will be required.

According to the coordinators:

- Selection of communities has been based on level of risk and poverty.

- To carry out project activities suitable monitoring materials such as implementation plan, work plans, supervision sheets, progress and other reports are available; quantitative indicators are used.

- In regard to volunteers working in the communities (promoters), their activities are carried out efficiently; however, there is a high rate of desertion (20% in Latacunga).

  According to the Vicars and coordinators, the most significant project achievements are:

  - Children growth monitoring

  - Attention during diarrheal episodes.

  - Strengthening of community organization and participation (credit committees).

From interviews at administrative level, including CRS-Quito, it can be seen that the project has emphasized community strengthening activities which has resulted in the formation of credit committees and will provide a base for future self-management.

Information System

The Information System collects information on the project beginning at the community level. These forms are sent to the respective diocese, where the coordinator processes it manually, and elaborates monthly reports.

This information is used in two ways:

1. The promoter and the mother analyze if the child is growing properly in the community.

2. After analyzing the information, the coordinator gives feedback and proper assistance to the community.

In the health cards provided by MPH all information (immunizations) has not been registered. Mothers have registered only information about growth monitoring, and the MPH registers immunizations.

Human Resources

Personnel working in the project are:

Central level: The Director of the Health Area
The Project Coordinator

Diocesan level: 3 Vicars
3 Coordinators
4 Technicians
3 Accountants

At community level: There are 150 volunteers, who do not earn remuneration.

Supervision

Technical and administrative assistance during visits from the central level to the dioceses is carried out monthly, and according to requirements.

Supervision from the technical team to the communities is carried out according to the operative plan and the community necessities. Average of yearly visits is 7.

RECOMMENDATIONS

1. Strategies used in the educational component, should be continued and strengthened with training and educational material in order to achieve project goals.

2. Training to promoters on participatory adult education methodologies and group management techniques should be continuous.

3. Training to the technical teams should be based on previous evaluations.

4. Educational material should be reviewed and redesigned to meet diocese needs. Preferentially, it should be audio-visual and self-explanatory.

   Educational messages to communities speaking Quichua should be bilingual.

5. Education on the advantages and importance of breastfeeding should be strengthened with the following strategies:

   - Education and follow-up activities for nursing and pregnant mothers (6-7 months).

     Mother to mother, or nursing to pregnant mother education.

   - Participation of midwife in mothers meetings for training.

   - Coordination with health centers for joint education.

6. Establish coordination with MPH and "La Red Comunitaria **Infantil",** for registration of information about growth monitoring and immunizations in a single health card. Also, data about immunizations should be registered in the information system.

7. Prevention activities of ARI should be included in the project.

8. The information system should be reviewed and include the following data:

   - Exclusive breastfeeding to children under 4 months of age, feeding during **diarrheal** episodes, mothers starting breastfeeding within 8 hours of delivery, and breastfeeding duration.

9. Implementation of a participatory supervision system at all levels, including ways to improve personnel motivation, provide continuous training, assure quality control, evaluate and utilize immediate information feedback. Especially important would be incorporation of indicators for production and effectiveness eg. (correct/incorrect).

10. Three months after supervision structures have been implemented, they should be evaluated on cost-effectiveness and beneficiaries satisfaction, This must be accomplished in relation to assuring project sustainability.

11. The decentralization process must be consolidated at the diocesan level, in order for the project activities to be sustainable.

12. Assistance and training to credit committees members and community treasures must be systematic.

13. Communication mechanisms with MPH must be strengthened, especially at provincial and local levels, to establish joint operational strategies.

14. Internal and external financing alternatives must be found to assure the project continuity.

16. Since the credit-production component facilitates educational activities and has high significance at community level. Lessons must be shared with other projects.

ANNEX 1

Project Population

DIOCESES	NO. COMMU	TOTAL FAMIL	No.FAMI BENEFI.	% FAMI BENEFI.
CUENCA	16	846	422	50
LATACUNGA	21	1.187	661	55.6
PORTOVIEJO	22	1.154	564	48.9
TOTAL	59	3.187	1.647	51.6

ANNEX 2

SAMPLE POPULATION

COMMUNITY	No. FAMI.
CUENCA	
Quillopungo	78
Corraleja	64
Yacudel	51
Susudel	29
San Vicente	38
Sarayunga	123
Gramalote	55
LATACUNGA	
San Gerardo	43
Collas Bajo	39
Aguallaca Grande	23
San Marcos	46
Chambana	34
San Rafael	55
Cochaloma	85
Jachaguango	98
La Cooperativa	82
Tingo Grande	30
San Fco. de Cachi	120
Cuturivi Chico	86
PORTOVIEJO	
Bejucal	41
Cristo de1 Consuelo	15
La Cuesta	82
La Pita	46
Miguicho	47
Pepa de Huso	154
San Francisco	60
Valentín	48
Zapote	135